

Docket No. F-8417

Ser. No. 10/511,236

**REMARKS**

Claims 1, 2, 5-10 and 13-18 remain pending in this application. Claims 1-18 are rejected. Claims 3, 4, 11 and 12 are cancelled herein. Claims 1, 7, 8, 9, 10, 15, and 16 are amended herein to clarify the invention. No new matter is added.

**CLAIM REJECTIONS UNDER 35 U.S.C. §101**

Claims 1-8 and 17 are rejected under 35 U.S.C. §101 as nonstatutory subject matter for allegedly being directed to a computer program. Applicant respectfully traverses this rejection.

The Office action states that the claims merely recite a “nominal recitation of a computer without positively reciting any physical structure” and that the claims are therefore treated as being directed to “a software embodiment.” From the rejection it appears that a misconception exists as to what is actually recited in the claims.

It is well settled that data structures embodied in a computer readable medium are physical entities and that data structures which provide for a functionality in conjunction with a computer reading the data structures are statutory subject matter. It is further well accepted that a computer programmed to effect a method is a device configured in a manner that is statutory subject matter. *In re Lowry*, 32 F.3d 1597, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994). Indeed, the MPEP states that “a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data

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structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory." MPEP §2106.01 (Rev. 5 August 2006).

In the present instance the claims are directed to a "conversation control computer" and the claims relate various functional units that are effectuated by the programming of the computer. As such the claims recite physical structure, i.e., a computer programmed to effectuate the operations stated. The Office Action states that the "specification describes the various limitations of the invention as corresponding software or programs." Applicant respectfully disagrees with this statement. The specification is clearly directed to a "conversation control system" which is disclosed in Figs. 1, 2, 12, 14, 16, and 17, *inter alia*, as a computer configured to act as various functional units and access various databases. The functional block diagrams layout a complex system of units that interact with each other. The claims 1-8 and 17 relate those functional units in detail wherein each unit is related as being "configured to" effect the various functions of the system. As such, recitation of "configured" relates structure needed to effect the operations recited and hence the claim is submitted as *clearly* relating to a machine.

In light of the foregoing explanation, applicant respectfully submits that the claim language clearly sets forth statutorily patentable subject matter. Accordingly, withdrawal of the rejection under 35 U.S.C. 101 is respectfully requested.

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**CLAIM REJECTIONS UNDER 35 U.S.C. §103(a)**

Claims 1-18 are rejected as obvious over the Walker reference in view of the de Hita reference under 35 U.S.C. §103(a). The applicant herein respectfully traverses this rejection. For a rejection under 35 U.S.C. §103(a) to be sustained, the differences between the features of the combined references and the present invention must be obvious to one skilled in the art.

Applicants respectfully submit that amended independent claims 1 and 9 recite patentable features not taught by the combination of the Walker and de Hita references. Amended independent claim 1 recites, *inter alia*, a conversation control computer comprising:

an elliptical sentence supplementation unit configured to add the searched piece of topic identification information to the first morpheme information extracted at the morpheme extracting unit to provide a supplemented first morpheme information when no piece of second morpheme information including a portion of the extracted first morpheme information can be located by the search performed at the topic search unit, wherein

the topic search unit is configured to search, based on the supplemented first morpheme information, a piece of second morpheme information including a portion of the supplemented first morpheme information from among the pieces of second morpheme information.

Amended independent claim 9 recites a similar feature to the above.

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According to the exemplary embodiment of the claimed invention, an elliptical sentence supplementation unit (supplementation unit) 330 adds topic identification information searched last time at the claimed topic identification information search unit 320 to the first morpheme information extracted at the morpheme extracting unit 420 to provide a supplemented first morpheme information, when a topic title (second morpheme information) including a portion of the extracted first morpheme information is not found by the search performed at the topic search unit 340. Then, based on the supplemented first morpheme information, the topic search unit 340 searches for an appropriate topic title including a portion of the supplemented first morpheme information from among topic titles. Therefore, even if the contents of an utterance of a user constitutes an elliptical sentence, the elliptical sentence supplementation unit 330 can supplement the elliptical sentence, using previously searched topic identification information. As a result, even when a sentence composed of first morpheme information is an elliptical sentence, the elliptical sentence supplementation unit 330 can make the sentence into a correct language (see spec. page 16 line 6 . page 17 line 21). Both claims 1 and 9 now fully recite the above functionality.

The Walker reference describes a system for communication recognition and understanding (see paragraph [0002]). The Walker reference however fails to disclose or suggest an elliptical sentence supplementation unit configured to add a piece of topic identification information previously searched at the sentence planning

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system 100 to the first morpheme information extracted at the recognizer 920 when no piece of second morpheme information including a portion of the extracted first morpheme information can be searched at the sentence planning system 100, as recited in amended independent claims 1 and 9. This feature was previously related in claims 4 and 12.

In rejecting claims 4 and 12 the Office Action cited the de Hita reference at col.14 line 34 to col.17 line 29. However, a review of the cited portion of the de Hita has not found subject matter corresponding to the presently claimed features of claims 1 and 9, formerly part of claims 4 and 12.

The de Hita reference describes topic identification *information* (e.g., "organizations" and "companies") with a data tree structure (e.g., the topic "organizations" under its subtopic "companies") previously associated with an input word (e.g., "Novell") (see col.14 line 34 to col.17 line 29). However, this portion of the De Hita reference fails to disclose or suggest an elliptical sentence supplementation unit configured to add a piece of topic identification information previously searched at the linguistic topic analyzer 330 (i.e. the topic search unit) to the first morpheme information input from a user when a head topic or topic modifier (second morpheme information) including a portion of the input first morpheme information that cannot be searched at the linguistic topic analyzer 330, (i.e. the topic search unit) as recited in amended independent claims 1 and 9.

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In view of the above, it is submitted that the combination of the Walker and de Hita reference does not provide a teaching relating to supplementation of an elliptical sentence. Thus, it is respectfully submitted that the rejected claims are not obvious in view of the cited reference(s) for the reasons stated above. Reconsideration of the rejections of claims 1, 2, 5-10 and 13-18 and their allowance are respectfully requested.

**NO FEE DUE**

No fee is believed due. If there is any fee due the USPTO is hereby authorized to charge such fee to Deposit Account No. 10-1250.

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In light of the foregoing, the application is now believed to be in proper form  
for allowance of all claims and notice to that effect is earnestly solicited.

Respectfully submitted,  
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